

Bruhat Bangalore Mahanagara Palike
Executive Engineer Yelahanka Project Division

Name of Work: Modified Estimate for Improvements to Roads and Drains At Thirumenahalli Colony In Ward no.05

Sl No	Description of Items	Unit	No	Length	Width	Depth	Quantity	Rate	Amount
	Civil Work								
1	KSRRB M200-12.1. Dismantling of existing structures like culverts, bridges, retaining walls and other structure comprising of masonry, cement concrete, wood work, steel work, including T&P and scaffolding wherever necessary, sorting the dismantled material, disposal of unserviceable material and stacking the serviceable material with all lifts complete as per specifications. By Manual Means B. Cement Concrete Grade M-15 & M-20. (P.No. 139, I.No. 18.20 of CSR 2018-19)								
		Cum							
	Thirumenahalli Colony		1	133.40	4.75	0.25	158.44		
	2nd Street								
	Cross Rd(2nd Street To 3rd Street)		1	19.80	3.75	0.25	18.56		
	3rd Street		1	64.00	4.28	0.25	68.46		
	4th Street		1	51.10	4.91	0.25	62.68		
	5th Street		1	101.40	4.45	0.25	112.81		
	Cross Rd		1	50.10	3.66	0.20	36.66		
	Kogilu Layout								
	5th Cross Rd(Left Side)								
	Cross Rd-1		1	23.40	3.72	0.25	21.74		
	Cross Rd-2		1	38.50	3.21	0.25	30.91		
							510.26	526.00	268396.81
	Approved Amount			526.00					
2	KSRRB 300-1. Earthwork excavation by manual means for roads, drains & similar works in ordinary soil excavated surface levelled and sides neatly dressed, the disposed earth to be levelled neatly after breaking of clods complete as per specifications. MORTH / Chapter 3 (P.No.143, I.No.19.1 of PW, P&I WTD 5R 2018-19)								
		Cum							
	Drain Desilt								
	Thirumenahalli Colony								
	Cross Rd		2	43.35	0.60	0.60	31.21		
	RCC DRAIN								
	Thirumenahalli Colony								
	2nd Street RHS		1	62.70	1.00	1.10	68.97		
	Continue		1	62.90	1.10	1.10	76.11		
	2nd Street LHS		1	21.80	1.10	1.10	26.38		
	Cross Rd(2nd Street To 3rd Street) LHS		1	22.50	1.10	1.00	24.75		
	Cross Rd(2nd Street To 3rd Street) RHS		1	19.50	1.10	1.00	21.45		
	3rd Street		1	28.20	1.10	1.10	34.12		
	Cross Rd(4th Street To 5th Street) LHS		1	30.00	1.10	1.10	36.30		
	5th Street LHS		1	108.20	1.10	1.10	130.92		
	5th Street RHS		1	90.10	1.10	1.10	109.02		

	Description of items	Unit	No	Length	Width	Depth	Quantity	Rate	Amount
	1st Street		1	18.20	0.15	0.15	1.41		
	Cross Rd/1st Street To 2nd Street		1	85.90	0.30	0.15	2.05		
	1st Street L&B		1	104.20	0.30	0.15	14.61		
	1st Street Road		1	86.10	0.30	0.15	12.16		
	Cross Rd. (Shaper)		1	112.00	0.30	0.15	15.12		
	Cross Rd. (Shaper)		1	13.70	0.30	0.15	1.85		
	App to 1st Street		1	49.00	0.30	0.15	6.82		
	1st Street								
	Substructure (Shoring)								
	1st Street Road		2	62.70	0.15	0.60	11.29		
	Continues		2	62.90	0.15	0.60	11.32		
	1st Street L&B		2	21.80	0.15	0.60	1.92		
	Cross Rd/1st Street To 2nd Street		2	22.50	0.15	0.60	4.05		
	Cross Rd/1st Street To 2nd Street		2	19.50	0.15	0.60	1.51		
	1st Street		2	28.20	0.15	0.60	5.08		
	Cross Rd/1st Street To 2nd Street		2	30.00	0.15	0.60	5.40		
	1st Street L&B		2	108.20	0.15	0.60	19.48		
	1st Street Road		2	90.10	0.15	0.60	16.22		
	Cross Rd. (Shaper)		2	112.00	0.15	0.60	20.16		
	Cross Rd. (Shaper)		2	13.70	0.15	0.60	2.47		
	App to 2nd Street		2	49.00	0.15	0.60	8.82		
							194.55	7423.00	1444133.52
	Approved Amount			7423.00					
5	Providing and laying in position plain/reinforced cement concrete M20 for sub-structure/superstructure works, with cement @ 320 kgs, 20 mm & down size graded granite metal coarse aggregate @ 0.60 cum and fine aggregates @ 0.46 cum machine mixed with super plasticiser @ 1 ltr conforming to IS 9103-2008, concrete laid in layers, well compacted and providing weep holes wherever necessary with necessary scaffolding, form work etc., including cost of labour, H&A curing etc., complete (P No 257, L No 34 17 of PW, P&I WTD SR 2018-19)								
	Cum								
	Culvert Raft		5	4.98	1.20	0.20	5.98		
	Culvert Wall		10	4.98	0.23	0.60	6.87		
							12.85	5541.00	71,192.98
	Approved Amount			5541.00					
6	KRSB 4.6.1 Providing and removing centering, shuttering, strutting, propping etc., and removal of form work for foundations, footings, bases of columns for mass concrete including cost of all materials, labour complete as per specifications. Specification No. KRS 4.6.1 (P No 16, L No 4 28 of PW, P&I WTD SR 2018-19)								
	Sqm								
	Culvert Raft		10	4.98		0.20	9.96		
							9.96	287.00	2,858.52
	Approved Amount			287.00					

No	Description of items	Unit	No	Length	Width	Depth	Quantity	Rate	Amount
7	KBS 4.6.1 : Providing and removing centering, shuttering, strutting, propping etc., and removal of form work for foundations, footings, bases of columns for mass concrete including cost of all materials, labour complete as per specifications. Specification No. KBS 4.6.1 (P No 16, I No 4.31 of PW, P&WTD SR 2018-19)								
		Sqm					59.76		
	Can-bit Wall		20	4.98		0.60	59.76	198.00	11784.00
	Approved Amount			198.00					
8	KBS 4.6.2 : Providing T.M.T steel reinforcement for R.C.C work including straightening, cutting, bending, hooking, placing in position, lapping and / or welding wherever required, tying with binding wire and anchoring to the adjoining members wherever necessary complete as per design (sign, hooks and wastage shall not be measured and paid) cost of materials, labour, HOM complete as per specifications (P No. 18, I No. 4.46.2 of PW, P&WTD SR 2018-19).								
		Tn							
	For Drain 65kg/cum			194.55	0.065		12.65		
	For Culvert 90kg/cum			12.85	0.090		1.16		
							13.80	78978.00	1090055.03
	Approved Amount			78978.00					
9	Providing and fixing RCC Precast cover slab of 100mm thick for drain in cement concrete M20 using graded granite jelly 20mm and down size with steel reinforcement, including form work, lift charges, curing and concrete finished surfaces on both sides etc, complete and as per drawing and the directions of Engineer in-charge (Data Rate)								
		Sqm							
	Thirumeshalli Colony								
	2nd Street RHS		1	62.70	0.75		47.03		
	Continue		1	62.90	0.90		56.61		
	2nd Street LHS		1	21.80	0.90		19.62		
	Cross Rd(2nd Street To 3rd Street) LHS		1	22.50	0.90		20.25		
	Cross Rd(2nd Street To 3rd Street) RHS		1	19.50	0.90		17.55		
	3rd Street		1	28.20	0.90		25.38		
	Cross Rd(4th Street To 5th Street) LHS		1	30.00	0.90		27.00		
	5th Street LHS		1	108.20	0.90		97.38		
	5th Street RHS		1	90.10	0.90		81.09		
	Cross Rd(Z-Shape)		1	112.00	0.90		100.80		
	Cross Rd(L-Shape)		1	13.70	0.90		12.33		
	Opp to 2nd Street		1	49.00	0.90		44.10		
	Kogilu Layout								
	2nd Cross Rd LHS		1	200.40	0.90		180.36		
	2nd Cross Rd RHS		1	208.50	0.90		187.65		
							917.15		
				Upto 125%			540.00	2454.00	1325160.00
				Above 125%			377.15	2454.00	925513.83
	Approved Amount			2454.00					

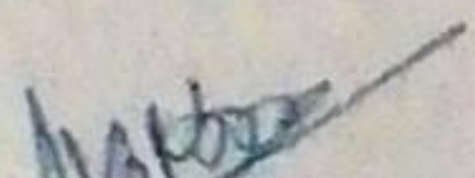
No	Description of Items	Unit	No	Length	Width	Depth	Quantity	Rate	Amount
10	Providing and fixing pre cast covering slab 250mm thick made out of CC 1:2:4 and jelly 20mm down site with steel reinforcement including form work curing including cost of all materials, labour hire charges of machinery, loading, unloading, lead and lift, transportation etc. complete As per Engineer incharge (Data Rate)	Sqm					22.46		
			4	4.68	1.20		9.10		
			1	6.20	1.50		11.76	5688.00	180673.64
		Approved Amount					5688.00		
11	KSRRB M300-53. Construction of embankment with approved material Gravel/Murum with all lifts and leads, transporting to site, spreading, grading to required slope and compacting to meet requirement Table 300-2 complete as per specifications, including cost of gravel / murum, watering charges & compaction by vibratory roller to 95% of modified proctors density. MORTH Specification No. 305	Cum					0.00	362.00	0.00
		Approved Amount					362.00		
12	KSRRB 2.6 Providing and filling sand in foundation to required depth for sub soil treatment including watering ramming with all lead and lift complete as per specifications. specification. No. KBS 2.10.2	Cum					0.00	2293.00	0.00
		Approved Amount					2293.00		
13	Construction of granular sub-base Grading-V as Sub-base and drainage layer by providing coarse graded crushed stone aggregates of granite/ trap/basalt material, mixing in a mechanical mix plant at OMC, Carriage of mixed material to work site, spreading in uniform layers with motor grader on prepared surface and compacting with vibratory power roller to achieve the 98 % proctor density, complete as per specifications Clause 401 of MORTH V Revision. (I No-20.5, P No-153)	Cum					0.00	1948.00	0.00
		Approved Amount					1948.00		
14	KSRRB M400-17. Providing, laying, spreading and compacting crushed stone aggregates of granite / trap / basalt to wet mix macadam specifications including pre mixing the material with water at OMC in mechanical mix plant carriage of mixed materials by tipper to site, laying in uniform layers with paver in sub-base/base course on well prepared surface and compacting with vibratory roller to achieve the desired density complete as per specifications. MORTH Specification No. 406	Cum							
	Thirumenahalli Colony		1	133.40	0.98	0.20	26.15		
	2nd Street		1	101.40	1.06	0.20	21.40		
	5th Street								
	Kogilu Layout								
	5th Cross Rd(Left Side)								
	Cross Rd-1		1	23.40	0.97	0.20	4.56		
	Cross Rd-2		1	38.50	0.96	0.20	7.39		
							59.49		
							57.50	2101.00	120807.50
							1.99	2101.00	4,185.44
		Approved Amount					2101.00		

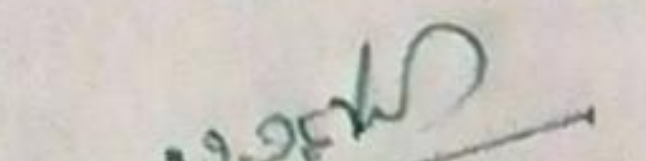
	Description of Items	Unit	No	Length	Width	Depth	Quantity	Rate	Amount
15	GRADE M300-1 Providing and Constructing dry lean cement concrete mix CC 1:5:10 base with OPC 25mm and down size graded granite metal coarse aggregate at 0.86cum and fine aggregate 0.48cum over a prepared sub-base, coarse and fine aggregate conforming to IS 383-2016 aggregate cement ratio not to exceed 15:1. Aggregate gradation after blending to be as per Table 900-1 optimum moisture content to be determined during trial length construction, concrete strength not to be less than 10 Mpa at 7 days, mixed in a batching plant, transported to site, laid with a paver, compacting with 8-10 tonnes vibratory roller, finishing and curing complete as per specifications. Clause 601 of NORTH V Revision and IS 456 Table-5 (P.No 174, L.No 22.1.1 of PW, P&WTD SR 2018-19)								
		Cum							
	Thirumenahalli Colony								
	2nd Street		1	133.40	4.75	0.15	95.06		
	Cross Rd(2nd Street To 3rd Street)		1	19.80	3.75	0.15	11.14		
	3rd Street		1	64.00	4.28	0.15	41.08		
	4th Street		1	51.10	4.91	0.15	37.61		
	5th Street		1	101.40	4.45	0.15	67.68		
	Cross Rd		1	50.10	3.66	0.15	27.50		
	Kagilu Layout								
	5th Cross Rd(Left Side)								
	Cross Rd 1		1	23.40	3.72	0.15	13.04		
	Cross Rd 2		1	36.50	3.21	0.15	18.54		
							111.66	1990.00	1243505.58
	Approved Amount			1990.00					

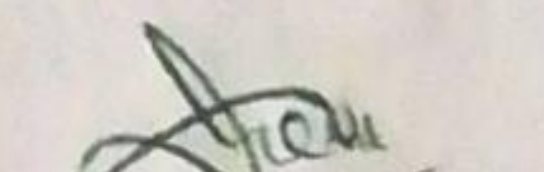
16 Constructing un-reinforced, plain cement concrete for pavements using Grade concrete M30 with OPC at 360 kg/cum and coarse aggregate 0.86cum, fine aggregate 0.48cum over a prepared base with OPC coarse aggregate at 0.69 cum, fine aggregate at 0.46 cum. Coarse and fine aggregate conforming to IS 383-2016, with Superplasticer at 1 kg conforming to IS 9103-2008, mixed in a concrete mixer of not less than 0.6 cum capacity and appropriate weigh batcher as per approved mix design, laid in approved fixed side form work (steel channel, laying and fixing of 1.25 micron thick polythene film, wedges, steel plates including levelling the form work as per drawing) & spreading the concrete with shovel, rollers compacted using needle, screed and plate vibrator and finished with floaters in a continuous operation including provision of contraction, expansion, construction and longitudinal joints including groove cutting charges, joint filler, separation membrane of impermeable plastic sheet of 1.25 micron, sealant primer, joint sealant, admixtures as approved, curing compound, finishing to lines and grades, textured with texturing machine, and curing including cost of all materials, labour, hire charges of machineries, all lead & lift charges etc., complete as per specifications (P.No 174, L.No 22.1.1 of PW, P&WTD SR 2018-19)

		Cum							
	Thirumenahalli Colony								
	2nd Street		1	133.40	4.75	0.15	95.06		
	Cross Rd(2nd Street To 3rd Street)		1	19.80	3.75	0.15	11.14		
	3rd Street		1	64.00	4.28	0.15	41.08		
	4th Street		1	51.10	4.91	0.15	37.61		
	5th Street		1	101.40	4.45	0.15	67.68		
	Cross Rd		1	50.10	3.66	0.15	27.50		
	Kagilu Layout								
	5th Cross Rd(Left Side)								

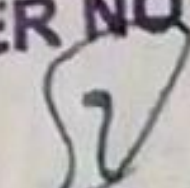
Description of Items	Unit	No	Length	Width	Depth	Quantity	Rate	Amount
Cross Rd-1		1	23.40	3.72	0.15	13.04		
Cross Rd-2		1	38.50	3.21	0.15	18.54		
						311.66	5471.00	1705067.43
Approved Amount			5471.00					
17 Vacuum de-watering with vacuum pump and suction mat and compaction with skin floater clubbed with floating disc including cost of generator, HOM of machinery, Screed Vibratory, Power Floater, blade and disc etc., with all lead and lift. (P.No 176, I.No 22.7 of PW,P&I WTD S.R 2018-19)								
	Sqm							
Thirumenahalli Colony						633.76		
2nd Street		1	133.40	4.75		74.25		
Cross Rd(2nd Street To 3rd Street)		1	19.80	3.75		273.86		
3rd Street		1	64.00	4.28		250.72		
4th Street		1	51.10	4.91		451.23		
5th Street		1	101.40	4.45		183.32		
Cross Rd		1	50.10	3.66				
Kogilu Layout								
5th Cross Rd(Left Side)						86.95		
Cross Rd-1		1	23.40	3.72		123.62		
Cross Rd-2		1	38.50	3.21		2077.70	75.50	156866.62
Approved Amount			75.50					
Total Construction Cost								9290594.26
Miscellaneous & Rounding Off								212.78
Total								9290807.04

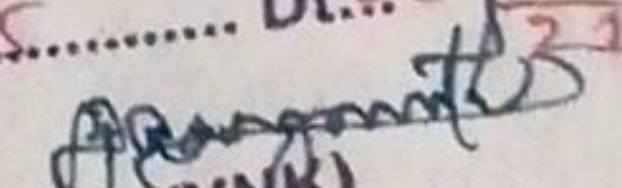

Assistant Engineer


Asst. Executive Engineer


Executive Engineer

Technical Sanction
Accorded For RS 9290807.04
Head of A/C P1878
CER NO : 65 Dt: 06.04.21


TA


CE (YMK)